NEWS AND RESOURCES FOR TEACHERS OF ENGINEERING & TECHNOLOGY EDUCATION

Indiana Tech Flash

Indiana's Most Comprehensive Electronic Resource For Engineering & Technology Education.

Summer 2010

Special points of interest:

- **31 Pages of Resources!**
- **Grants, Awards, & Opportunities**
- **Save the Dates!**

Features inside this issue include:

Summer Issue

Each summer I work to collect the resources shared from throughout the prior school year from the ITTE. This year I have worked to collect nearly 31 pages of opportunities grants, and awards.

Inside this issue of the Summer Tech Flash you will find lesson plan ideas, software, free magazines, student activities, projects and more!

Furthermore you will learn of several upcoming fall events such as the E/TEI & I-ACTE joint State Conference to support you in both your professional development and in helping you network with your colleagues to share best practices, tips and tricks for helping to make your students even more successful.

I would like to thank you for another school year where you invested in yourself to make your students great.

It has been a great pleasure serving to support you as best as I can.

Have a great remainder to your summer. I wish you well in the start of another school year in only a few short weeks! **-mfitz**

SAVE THE DATES — FALL 2010

Engineering / Technology Educators of Indiana

I - ACTE & E/TEI State Conference

September 24, 25 2010

More details will be available **ONLINE** at:

http://www.etei.net/

2010-2011 E/TEI, I-ACTE & ITEEA Membership Renewal!

Engineering / Technology Educators of Indiana

Home | About Us | News & Events | Membership | Contact Us | Friends of ETEI

Membership Information

Please fill out the information below. Upon completion you had two choices for submitting.

- 1) Submit the form by clicking on the "Submit" button. This will email your form to info@etei.net. You will then need to make a payment using the PayPal link. (PayPal Under Construction)
- 2) Print out the form by clicking on the "Print" button below. Mail the form with a check to:
  Brian Bettag
  1021 North 21st St.
  Lafayette, IN 47904

E-mail Address: *	
Name *	
Please Select Home or School/Business regarding the information below.	☐ Home ☐ School/Business
Address *	
City *	
State *	
Zip *	
Phone *	
ETEI District *	
Membership Desired *	☐ ETEI $20.00 ☐ ETEI Student $5.00 ☐ ETEI Retired $5.00

Indiana ACTE Membership Form

2008 update

Member Information

Member Name: Home Address:
City: State: Zip:

Workplace: Workplace Address:
City: State: Zip:

Phone: (h) (w) Fax: (h) (w)

E-mail: (h) E-mail: (w)

Instructional Area: New Member: ☐ Renewal: ☐ Years in Education:

I. ☐ Indiana ACTE *Indiana Association for Career and Technical Education*

Annual Dues $30.00 ____

Special memberships: Loyalty (Retiree) Fee-5.00 ☐ Student Annual Fee-10.00 ☐ Life Member Fee-400.00 ☐

II. Indiana ACTE affiliates

☐	**IACTEA**	Indiana Association of Career & Technical Education Administrators	Annual Dues	10.00
☐	**IACTT**	Indiana Association of Career and Technical Teachers	Annual Dues	15.00
☐	**IBEA**	Indiana Business Education Association	Annual Dues	20.00
☐	**IHCE**	Indiana Health Careers Educators	Annual Dues	10.00
☐	**IICCA**	Indiana Interdisciplinary Cooperative Coordinators Association	Annual Dues	10.00
☐	**IMEA**	Indiana Marketing Education Association	Annual Dues	10.00
☐	**INDFACS**	Indiana Division of Family and Consumer Sciences	Annual Dues	10.00
			Student Dues	5.00
☐	**ISCA**	Indiana School Counselors Association	Annual Dues	45.00
☐	**IAAE**	Indiana Association of Agricultural Educators *includes NAAE and IAAE membership	Annual Dues*	81.50

Total Cost for Affiliates$____

III. ☐ACTE - Association for Career and Technical Education

Annual Dues-$60.00 ☐

Loyalty (Retiree) Fee-$31.00 ☐ Student Annual Fee-$10.00 ☐

ACTE Division Memberships Your ACTE membership includes membership in one division. Check your primary division

Division(s):

Administration☐ Adult Workforce Development☐ Agriculture Education☐
Business Education☐ Family & Consumer Sciences Education☐ Guidance☐
Health Occupations Education☐ Marketing Education☐ Special Needs☐
Technology Education☐ Trade and Industrial Education☐ New and Related Services☐

Additional divisions may be added for $10 each.

Total cost for ACTE: $____

Signature:_____ Date: _____

Total Paid: $

Make Check Payable to: **Indiana ACTE**

Send form to: *Cynthia Biggs, Executive Director ~ Indiana ACTE ~ 1029 Lynas Street, Logansport, IN 46947*

The Following for Official Use Only

Entered Data Base: Date Processed: EMAIL: Membership Card: Indiana ACTE: Exp. Date

2010 ITEEA "Member-Recruit-a-Member" Contest

Contest open to all ITEEA members through December 31, 2010

Recruit new members and receive **REWARDS** from ITEEA!

Number of New Professional Members Recruited	Reward
1-4	ITEEA Bucks for you to use: $10.00/member, $40.00 max. Use to purchase publications, EbD materials.
5-10	50% reg discount for 2011 conference
11+	FREE REGISTRATION to next ITEEA Annual Conference

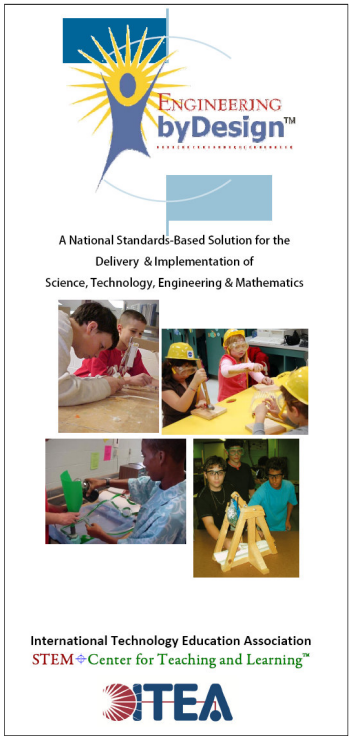
NEW MEMBER DEFINITION – Has not been a professional member for at least 1 year.

The new member must fill out the "referred by" field on the membership form (www.iteea.org/Membership/membership.htm).

Recruitment analysis will be evaluated 2/2011.

ITEEA

Engineering byDesign™ (EbD)
A Standards-Based Model Program Grades K-12



FREE! - Engineering byDesign
Samples available at:

http://www.iteea.org/EbD/Samples/ebdsamples.htm

Join ITEEA
and receive these member benefits:
Technology and Engineering Teacher (TET)
(all memberships)
Children's Technology and Engineering (CTE)
(group memberships)
Online Resources
Networking Opportunities
Insurance Programs
Grants and Scholarships
Professional Development
Publications Discounts
Recognition and Awards
Government Relations

ITEEA Membership Application

Our members are classroom teachers from elementary to high school, local and state/provincial supervisors, college/university faculty, and museum staff. Their common ground is an interest and involvement in technology and engineering education. Founded in 1939, ITEEA brings together technology and engineering education professionals to share ideas, gain professional development, and improve public understanding of technological literacy.

❑ New Code _____ Referred by _____

❑ Renew Member ID# _____

Check preferred mailing address: ❑ Home ❑ School/Business

Name _____

Home Address _____

City _____ State/Province _____ Zip + 4/Postal Code _____

Phone _____ Mobile Phone _____

Email (required) _____

School or Business _____

Address _____

City _____ State/Province _____ Zip + 4/Postal Code _____

Phone _____ Fax _____

Email (required) _____

Individual Membership

	2 Years	1 Year
Professional (U.S. only)	❑ $140	❑ $80
Passport (outside U.S. – *electronic only*)	❑ $100	❑ $55
Bridge *(one-time Student to Professional)*		❑ $65
Student *(full-time Undergraduate or Graduate)*		❑ $40
Advocate *(nonteaching professionals interested in STEM education – electronic only)*		❑ $40

Group Membership

	2 Years	1 Year
Elementary School	❑ $310	❑ $160
Institutional (University)	❑ $470	❑ $240
Museum	❑ $470	❑ $240
Corporate	❑ $700	❑ $400

Individual memberships include *Technology and Engineering Teacher.*
Group memberships include *TET* and *Children's Technology and Engineering.*
Memberships outside the U.S. are electronic only.

Optional Councils *(ITEEA Membership Required)*

	2 Years	1 Year
CTTE *(Teacher Educators)*	❑ $80	❑ $40
CS *(Supervisors)*	❑ $40	❑ $20
TECC *(Elementary – includes* CTE*)*	❑ $50	❑ $25

Optional Subscriptions *(member rates)*

Children's Technology and Engineering (4x a year)
❑ $35 United States ❑ $45 Other Countries ❑ $30 (electronic version/pdf)

Journal of Technology Education
❑ $15 United States ❑ $20 Other Countries

Membership Subtotal: $_____

Member Profile

Position
❑ Elementary Teacher
❑ Middle/Junior High Teacher
❑ High School Teacher
❑ University Professor
❑ Supervisor/Administrator
❑ Undergraduate College Student
❑ Graduate Student
❑ Retired
❑ Nonteaching/Consulting/Sales
❑ Other _____

Age Range
❑ 18-25
❑ 26-35
❑ 36-45
❑ 46-55
❑ Over 55

Gender
❑ Male
❑ Female

Donation

❑ Foundation for Technology Education contribution $_____

Payment

Total Amount Due: $_____
Must be in U.S. Currency and drawn on a U.S. bank.

❑ Purchase Order #_____
(Valid only with attached or faxed original.)

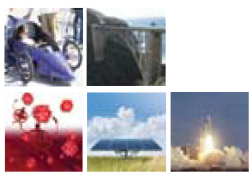
❑ Check enclosed (made payable to ITEEA)

❑ Please charge $_____ to:

❑ VISA ❑ MasterCard ❑ Discover

Card Number _____

Exp. Date _____ Signature _____



Join online:
www.iteea.org/Membership/membership.htm

More than a Membership! Join today.

Phone: 703-860-2100
Fax: 703-860-0353
Email: mwiley@iteea.org
Mail: 1914 Association Drive
Suite 201
Reston, VA 20191-1539

02010 A Journey To Success INDIANA ACTE

E/TEI Engineering / Technology Educators of Indiana

2010 Indiana ACTE & ETEI State Conference

Sponsored By: VINCENNES UNIVERSITY

Career Pathways: A Journey To Success

September 24-25, 2010

Wyndham Hotel & Conference Center ◆ Indianapolis, Indiana

Friday, September 24	
8:30 a.m.	Registration Opens
10:00 a.m.	Opening Session & Keynote *Sponsored by ITT*
11:00 a.m.	Pathways Presentation Department of Education
Noon	Lunch (Provided)
1:00-5:00 p.m.	Content Specific Sessions ETEI Sessions Affilliate Sessions General Sessions
2:00-7:00 p.m.	Vendors Open
5:00-7:00 p.m.	President's Reception Snacks/Drinks/Cash Bar

Saturday, September 25	
6:30-8:30 a.m.	Breakfast - Hospitality Room
9:00 a.m.-Noon	Career Pathways Sessions *Sessions to Address All of the 2010 Pathways Program Content and Completion Expectations.* ETEI/Affiliate Sessions
Noon-1:30 p.m.	IACTE Awards Lunch ETEI Awards Lunch *Sponsored by Vincennes University and Whitebox Learning*
1:30 p.m.	IACTE Delegate Assembly

Mark Calendars & Make Plans Now To Attend The Fall Conference
Sponsors/Events/Sessions/Activities Still Being Added & Finalized
Pre-Conference Workshops & Programs TBA

Make Sure Instructors & Administrators Of CTE Programs Are Up To Date On The Career Pathways Initiatives
Including Sessions On: Academic Instruction, PLTW, Special Populations, Data Analysis, and Differentiated Instruction

Up To 10 PGP and PDP Professional Growth Points For License Renewal

Special Thanks To: WHITEBOX LEARNING ITT Technical Institute ITT

Substitute Teacher Pay Reimbursement Available

Indiana Association for Career And Technical Education Conference

Cynthia Biggs
Indiana ACTE
1029 Lynas St. Logansport, IN 46947
574-722-2440 vm
574-722-2368

574-753-4162 fax
iacte@verizon.net

Jason Hendrickson
Exhibit Chairman
1061 Notting Hill Drive, Apt 1F
Indianapolis, IN 46234
317-745-6431

jhendrickson@danville.k12.in.us

March 22, 2010

We are happy to announce that **E/TEI, The Engineering & Technology Educators of Indiana**, will be holding a joint conference with Indiana ACTE. E/TEI is the professional organization for technology, innovation, design, and engineering educators in Indiana and is the state affiliate of the International Technology Education Association. E/TEI promotes technological and engineering literacy for all students by supporting the teaching of technology and promoting the professionalism of those engaged in this pursuit. Members of E/TEI include teachers, administrators, and university personnel.

Indiana ACTE and E/TEI would like to personally invite you to sign up for the 2010 Indiana Association for Career and Technical Education Fall Conference. This conference will be held in Indianapolis on September 24 – 25, 2010 at the Wyndham Indianapolis West. The Exhibit time will be on Friday, September 24, 2010. Indiana ACTE and E/TEI members will visit the exhibit displays at the same time, 3:00 to 6:30 pm.

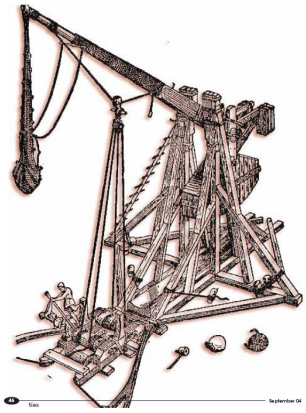
All exhibitors will have displays set up in the preconvene area outside the meeting rooms. We have arranged for set up time from 1 – 3 PM, all tables will have name tags to help avoid confusion at set up time. There will be rooms available if you would like to have a hands-on-demonstration of your products. A layout and location pamphlet of all exhibitors will be made available to all attendees, making it easier to find each exhibitor. We will also have a few Indiana ACTE and E/TEI members available to help with set up as needed. An area will be set up to provide a light snack during the exhibit time.

Please look over the forms included in this registration packet, fill them out and return them to the address listed above, with check made payable to Indiana ACTE. Be sure to reserve your exhibit table space prior to August 1, 2010, to avoid late fees. There are also other levels of conference sponsors. As a sponsor, you will receive a complementary exhibit table and your company's information will be included in the program booklet and a link will be added to our website. If you are interested in being a sponsor, please see enclosed sponsor information.

Again, you can see we are striving to provide the best conference for both our attendees and exhibitors. We would appreciate your support for Indiana ACTE and E/TEI. We are looking forward to seeing you at our 2010 fall conference and continuing the excellent relationships these two organizations have established.

Sincerely,

Cynthia Biggs and Jason Hendrickson



Math Students Build Trebuchets

7th grade math class decided to build their own trebuchets. The approximately 20 students worked in groups of four to build and test their individual trebuchets to see who could launch their projectile (i.e. ball of clay) the farthest.

http://www.tiesmagazine.org/archives/sep_2004/pdf/sep_2004_Trebuchets.pdf

TEACH GRANT PROGRAM

Through the College Cost Reduction and Access Act of 2007, Congress created the Teacher Education Assistance for College and Higher Education (TEACH) Grant Program that provides grants of up to $4,000 per year to students who intend to teach in a public or private elementary or secondary school that serves students from low-income families. If you are interested in learning more about the TEACH Grant Program, you should contact the financial aid office at the college where you will be enrolled to find out if they will participate in the TEACH Grant Program. For a listing of the TEACH Grant eligible institutions, click here.

http://studentaid.ed.gov/PORTALSWebApp/students/english/TEACH.jsp

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Public Service Loan Forgiveness Program

As a teacher in a public school or public service job you might be all eligible for the **Public Service Loan Forgiveness Program**.

Please be advised that your loans must be with The Federal Department of Education and they may also be able to help consolidate your loans for you.

A **Consolidation Loan** allows you to combine one or more of your federal education loans into a new loan that offers you several advantages such as one monthly payment, flexible repayment options, and reduced monthly payments. For more details contact the Public Service Forgiveness Program at: Contact 1-800-848-0979

http://www.finaid.org/loans/publicservice.phtml

Federal Perkins "Loan" Cancellations for Teaching in a Designated Subject Shortage Area

This cancellation is based on full-time teaching if there is a shortage of teachers in your subject area. Each year the state education agency determines any subject shortage areas in the elementary and secondary schools within the state.

Check with your local school system or state education agency to find out if your subject matter area has been so designated. If you teach full time in science, mathematics, foreign language, or bilingual education, you qualify for cancellation even if the state has not designated one of these subject areas as a shortage area. the "Teacher Shortage Areas" a nationwide listing by content area.

http://studentaid.ed.gov/PORTALSWebApp/students/english/cancelperk.jsp

something engineers consider in designing everything from houses to hair dryers. In this lesson for grades 3-5, students compare the heat capacities of different materials and learn why heat capacity is an important property of thermal energy.

Activity: Taking the Heat

Ever touch a metal object on a hot day? The heat burns your fingers. But the ground is cool enough to walk on barefoot. Different materials have a different heat capacity,

http://teachers.egfi-k12.org/activity-taking-the-heat/

Lesson: Bridge Building, Tension and Compression

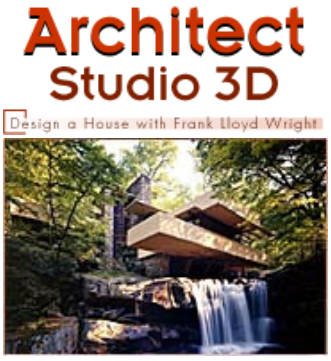
In this lesson for grades 6-12, students experience the forces of tension and compression by manipulating objects that are strong in each but not in both. Students then take what they have learned and apply it to the construction of a simple model of a beam bridge and the more complex suspension bridge and inverted triangle support structure. During the lesson, students watch video segments that illustrate the design and construction process in the real world.

http://teachers.egfi-k12.org/lesson-tension-and-compression/

DonorsChoose.org

is a simple way to provide students in need with resources that our public schools often lack. At this not-for-profit web site, teachers submit project proposals for materials or experiences their students need to learn. These ideas become classroom reality when concerned individuals, whom we call Citizen Philanthropists, choose projects to fund.

http:// www.donorschoose.org



Design Studio

On this Web site, you can design a house, walk through it in 3D, and then share it with the world. You can also learn more about architecture, past and present, and explore Frank Lloyd Wright's life and work.

http:// www.architectstudio3d.org/AS3d/home.html

Activity: The BristleBot

BristleBots are one variety of the popular vibrobot, a simple category of robot controlled by a single vibrating motor. This BristleBot is made from a toothbrush and a few low-cost materials and can easily be modified for additional challenge.

http://teachers.egfi-k12.org/activity-do-it-yourself-bristlebot/

Technical Education MAGAZINE

Welcome to Technical Education Magazine!

Technical Education Magazine (ONLINE and IN PRINT), encourages, enlightens and inspires educators in the Technical, Technology, Industrial, Vocational, and Pre-Engineering Fields. Leaders of Industry ensure continued relevance to our audience needs. Over 160,00 Professionals in 14,750 School Districts are influenced by our service. Total coverage of the Technical Programs is in Junior College, Vocational Schools, High Schools and Middle Schools.

http:// www.techedmagazine.com/home

DefinedSTEM Inspiring Our Future

Defined STEM Offers FREE Trial of Education Media for Indiana Schools

We have developed a unique approach to integrating STEM education into the classroom. The foundation of Defined STEM is our career based videos that interview various professionals (from NASA Engineers to Architects) depicting how they use science, technology, engineering and math in their day to day vocation.

http:// stem.definedlearning.com

Enter the *Promo Code: INSTEM*

For more info contact Brannan Kenny at (847) 481-8073

IEEE LAUNCHES NANOTECHNOLOGY SITE WITH EDUCATIONAL RESOURCES

To explain the ins and outs of the technology, Triangle Coalition member, IEEE, has launched TryNano.org a web site developed in conjunction with IBM and the New York Hall of Science.

The site provides an overview of nanotechnology and also provides information about applications and nanomaterials.

There are profiles of both organizations and individuals focusing on the field as well as resources for educators including lesson plans for classroom use.

TryNano.org was led by the IEEE Nanotechnology Council and the IEEE Educational Activities Board.

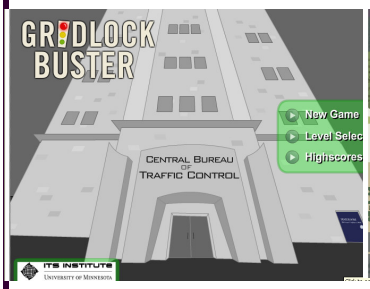
http://www.trynano.org/

Building a portable wind turbine

Determining the correct generator was the crucial first step in the project. Kevin tested a number of different options, from automotive alternators to stepper motors, before deciding on a smart drive from an old washing machine.

Smart drives perform well at the very low RPM (Revolutions Per Minute) generated by the turbine and have a high efficiency -to-weight ratio, making them relatively light.

http:// www.techlink.org.nz/ student-showcase/ electronics/kevin-wind-turbine.htm



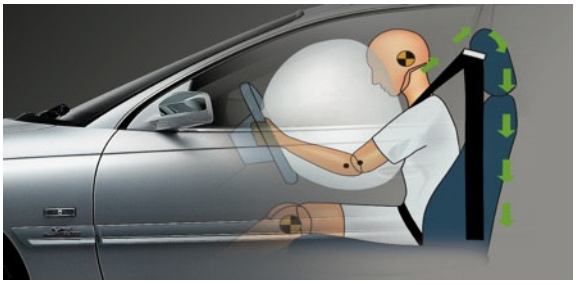
Traffic Game Lets High School Students Dabble In Engineering, Transportation

Gridlock Buster, as the game is titled, "was developed by the university's Institute of Transportation Studies.

The game incorporates tools and ideas that traffic control engineers use every day.

The game is available online at the University of Minnesota's website.

http://www.its.umn.edu/ trafficcontrolgame/game/



GM Education Website

The new and improved General Motors Education website serves as an additional education resource for parents, students, and teachers. It gives kids an opportunity to see how technology plays a role in their everyday lives. Some highlights of the new education site include:

Build your own ZR1 in Mr. Stephens' Engine Shop, Recycler's Challenge: An interactive quiz on the on the way things were "back in the day," titled Retro Techno, and MORE!

http://www.gm.com/ experience/education/ index.jsp

Puzzle maker from discovery education.com

To create your criss-cross, follow the steps below and click the "Create My Criss-Cross" button when you are done. Puzzle maker uses PNG image files which are only viewable in Netscape and Internet Explorer browsers version 4.0 or higher.

http://puzzlemaker.discoveryeducation.com/CrissCrossSetupForm.asp

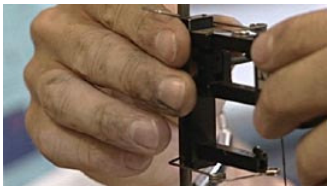
NASA Career Information

NASA Education has launched a new Web page that serves as a starting point to learn about jobs at NASA. Visit the site to learn more about scientists, technical experts, engineers, mathematicians, physicists, accountants, attorneys, astronauts, educators, pilots, astronomers and experts in many other fields. Features include: opportunities for students to intern at NASA, programs for visiting faculty, profiles of NASA employees, descriptions of jobs at NASA, posters and resources with career information, descriptions of NASA education programs, career pages with content sorted by grade levels.

http://www.nasa.gov/audience/forstudents/careers-index.html

Video discussing the Design Process

This video segment, adapted from *Thinking Big, Building Small*, demonstrates each part of the engineering design process, which is fundamental to any successful project. Though it does this in the context of building skyscrapers, the process is applicable to any sort of project, including constructing schools, building bridges, and even manufacturing sneakers. Students will recognize the value of going through its steps sequentially when constructing scale models.



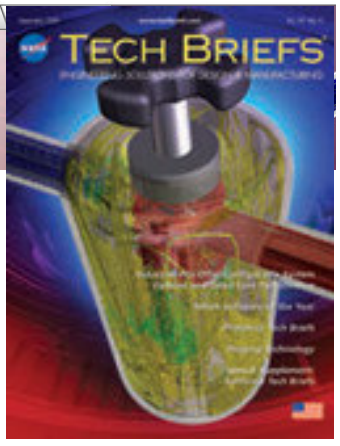
http://www.teachersdomain.org/resource/phy03.sci.engin.design.desprocess/

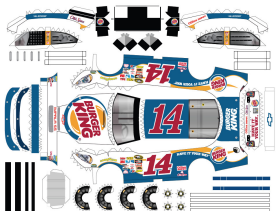
NASA Tech Briefs

NASA's Tech Briefs feature text, Technical Support Packages (TSPs) and free white papers that provide information about the technology being developed with NASA in a technical brief.

If a TSP is available, there will be a link at the end of the tech brief article.

http://www.techbriefs.com/





Model of NASCAR

A paper model for your students to construct!

http://www.bkracing.com/downloads/pdf/BK_Papercraft_Model. pdf

Fluid Power Journal

To start your complimentary subscription, take the time to fill out the questionnaire. The Fluid Power Journal strives to be your resource for the latest information regarding: hydraulics, pneumatics, vacuum, and motion control products, companies and services throughout the industry. In our 10 issues and online, from features on the latest and greatest in the industry to departments covering the IFPS, NFPA, FPDA, and other organizations we aim to inform and continually educate the fluid power professional.

http://www.fluidpowerjournal.com/

The Sitting Machine

What happens when 10-year-olds are given the chance to unleash their creativity in the classroom!

http://www.thesittingmachinemovie.com/

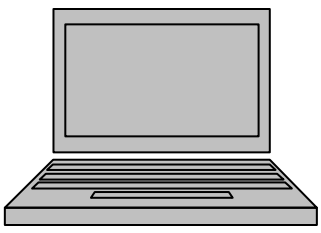
OpenOffice.org

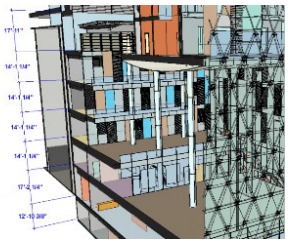
OpenOffice.org 3

is the leading open-source office software suite for word processing, spreadsheets, presentations, graphics, databases and more. It is available in many languages and works on all common computers.

It stores all your data in an international open standard format and can also read and write files from other common office software packages. It can be downloaded and used completely free of charge.

http://why.openoffice.org/





Graphisoft offers the fully functional Education Version of **ArchiCAD®** for Students and Teachers for free!

http:// www.graphisoft.com/ company/ about_graphisoft/

FlightGear

The goal of the **FlightGear** project is to create a sophisticated flight simulator framework for use in research or academic environments, for the development and pursuit of other interesting flight simulation ideas, and as an end-user application. We are developing a sophisticated, open simulation framework that can be expanded and improved upon by anyone interested in contributing

http://flightgear.org/ index.shtml

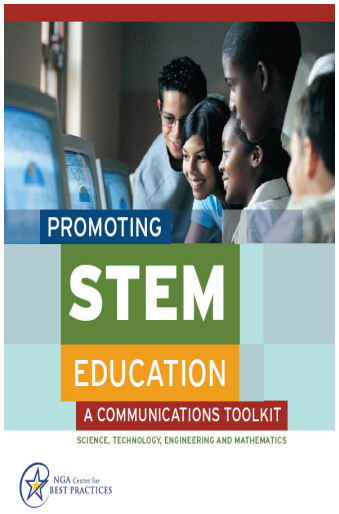
Engineering Alliance, a partnership among Project Lead The Way (PLTW), TSA and SkillsUSA has been launched and is now available for pre-engineering programs. Designed for PLTW middle and high school programs, Engineering Alliance provides a limited number of online competitions and leadership activities. All components are online and accessed through the Engineering Alliance website. Current TSA chapters may choose to also affiliate with Engineering Alliance. Be among the first 200 programs to affiliate with Engineering Alliance and receive Founding Partner status - immediate access to program components through the 2010-2011 school year, a Founding Partner plaque and website recognition for your school. Information about Engineering Alliance can be found in the PLTW press release and on the Engineering Alliance website. If you have questions about Engineering Alliance please contact Sandy Honour at shonour@tsaweb.org or 1-888-860-9010 (toll free).

http:// engineeringalliance.org/

Go!

is a free, online magazine for teens and young adults that explores the world of transportation and the careers they can find there. *Go!* is an online magazine for teens and young adults ages 14–20. The magazine covers transportation from all angles, from the infrastructure to the vehicles to the people behind the wheel—whether that "wheel" is on a car, truck, train, plane, or ship.

http://www.go-explore-trans.org/



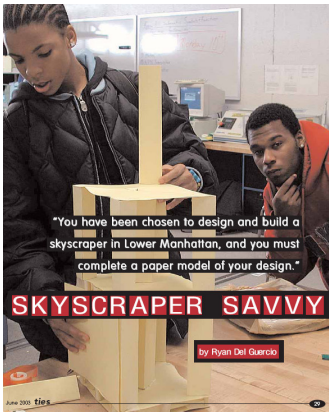
A Communications Tool Kit for Promoting STEM Education from the NBA Center for Best Practices

This toolkit is designed to support governors in communicating the need to provide a high-quality STEM education.

Intended for all K-12 students, based on NGA's policy

recommendations regarding STEM, and the long-term benefits of such an effort for each state's education and economic future.

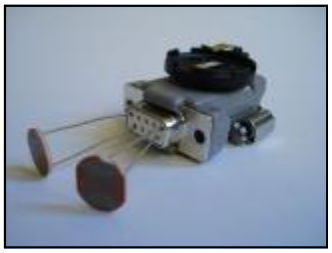
http://www.nga.org/Files/pdf/0804STEMTOOLKIT.PDF



Construction Technologies

To begin the skyscraper unit I do a lesson on construction technologies to familiarize the students with various construction materials, loads, and forces.

http://www.tiesmagazine.org/archives/jun_2003/pdf/jun_2003_Skyscrapers.pdf



BUG BOT! Want to add some robots to your Halloween party plans? Even better, how about some robot "bugs" dancing around the candy bowl?

Then Boo, the light-loving bug bot, might be for you. this bug robot can be easily built for less than ten bucks (or free if you have some spare parts in your workshop). Self-contained within a discarded DB-9 serial hood, Boo waits passively until some bright light catches its eye. Then it's show time!

The illumination triggers a tiny vibrating motor embedded in this bot's abdomen, and it's off to the races. If the jig the bug dances is not your cup of tea, slip a rubber grommet over the hub of the motor's spinning weight to give Boo some cockroach speed.

http://www.popsci.com/diy/article/2008-10/boo-bug-bot

Audacity®

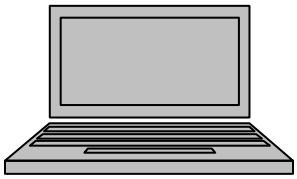
Ogg Vorbis, MP3, WAV or AIFF sound files, Cut, copy, splice or mix sounds together, Change the speed or pitch of a recording. And more!

Audacity is a Free, Cross -Platform Sound Editor.

Audacity is a free, easy to -use audio editor and recorder for Windows, Mac OS X, GNU/Linux and other operating systems.

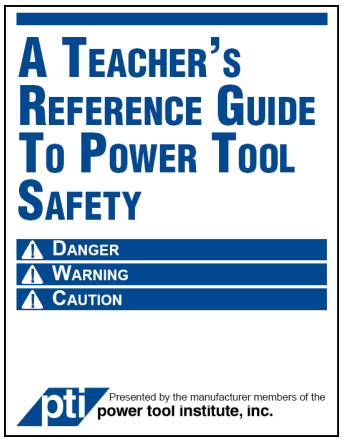
You can use Audacity to: Record live audio, Convert tapes and records into digital recordings or CDs, Edit

http://audacity.sourceforge.net/about/



The State of Indiana makes "surplus" computer hardware available to educational entities under IC 5-22-21-7.5. Questions about the program or about the status of pending orders may be directed to bflake@idoa.in.gov

http://www.doe.in.gov/super/2010/01-January/013010/documents/surplus_computer_request.pdf



A Teacher's Reference Guide to Power Tool Safety

PTI's 24-page brochure featuring lesson plans, student activities, quizzes, support materials, and references to additional information on each power tool category in "Safety Is Specific" (English and Spanish), PTI's compilation of rules and safe practices.

http://www.powertoolinstitute.com/pti_pdfs/PTI_Teachers_Guide.pdf

Lesson: Cracking the Code

This lesson for ages 8 to 18 explores how computerized barcoding has simplified distributing and pricing of products.

Students learn about encoding and decoding, the barcoding system, and how a mathematical formula is embedded in barcoding to safeguard against errors.

Students use websites to identify product barcodes, test codes from everyday products, and work as an "engineering team" to come up with the next generation of information embedding systems.

http://teachers.egfi-k12.org/lesson-cracking-the-code/

Lesson: Solar Cooking

In this series of lessons for grades 6-8, students first experiment with a virtual solar cooker to discover the mathematical relationship among reflection, transmission and absorption. Then they apply their knowledge to building and testing a solar cooker of their own invention. In an extension, students investigate how these principles can be used as sustainable energy sources for homes through passive solar heating.

http://teachers.egfi-k12.org/lesson-solar-cooking/

Virtual Solar Cooker interactive simulation

This simulation shows samples of solar cookers and how components may be added.

http://www.pspb.org/e21/media/SolarCooker.html

NUTS, BOLTS & THINGAMAJIGS
The Foundation of the Fabricators & Manufacturers Association, Intl.

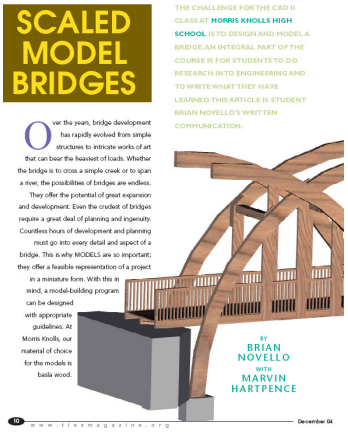
Dedicated to nurturing the tinkering spirit

Nuts, Bolts & Thingamajigs *Foundation*

Through its manufacturing summer camps and scholarships, NBT is inspiring the next generation of manufacturers, welders, plumbers, carpenters and more ... one tinkerer at a time.

John Ratzenberger, a founder of NBT, speaks on behalf of the organization and how we are addressing the urgent need to engage young people in career preparation for well-paid, fulfilling jobs that require hands-on skills.

http://www.nutsandboltsfoundation.org/



THE CHALLENGE IS TO DESIGN AND MODEL A BRIDGE.TO DO RESEARCH INTO ENGINEERING.

http://www.tiesmagazine.org/archives/dec_2004/pdf/dec_2004_ModelBridges.pdf

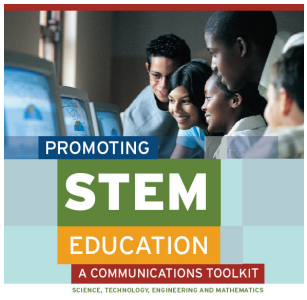
National Science Foundation
Resources for STEM Education

NSF Resources for STEM Education

K-12 Resources for Science, Technology, Engineering and Mathematics Education Resources and findings generated through educational research and development projects funded in part by the

National Science Foundation can help inform states and school systems that are developing strategies for improving K-12 STEM (science, technology, engineering and mathematics) education.

http://www.nsfresources.org/home.cfm



The Importance of STEM Education

As governors move this important STEM (Science, Technology, Engineering and Mathematics) policy agenda forward, they may find that some of their constituents have yet to be persuaded of the need for improvement. Some citizens and stakeholders may fail to grasp the strong link between high-quality STEM education and economic development in the state.

This toolkit provides core messages, materials, and communications strategies to help governors overcome such challenges and build strong support for STEM education initiatives. 1512. Tel: 202-624-5300; Fax: 202-624-5313; Web site: http://www.nga.org

http://eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/43/2d/67.pdf

CREATING A HIGH SCHOOL HOVERCRAFT CURRICULUM

In April of 2002 I began building an 11hp one-man hovercraft with the students in my Principles of Technology class. I decided to use the project as a semester long concluding activity to reinforce everything we had covered earlier in the year relating to force, work and rate in mechanical, fluid, electrical and thermal systems.

BY JIM BENINI

After ten weeks of work during and after class, we flew for the first time on the last day of school on the front ball field. My students spent the summer looking forward to participating in the second annual Connecticut Hover-in held in Windsor and getting the chance to fly on the Connecticut River. Things went so well at the rally I was asked to repeat the project for the 2002-2003 school year, but I realized that I needed to have a curriculum to really teach all of the concepts and science specific to building and flying hovercraft. I contacted the Hoverclub of America, and after several emails they told me that the club had started to put a preliminary framework together for a curriculum, but that it hadn't gone further than that. They also asked me to attend the World Hovercraft Championships to be held in Terra Haute, Indiana, September of 2003 to meet and discuss proposals for such a curriculum. At the end of the meeting I was designated to write a curriculum that would be made available to any teacher that wanted it.

march 05 www.tiesmagazine.org 19

High School Hovercrafts

My students spent the summer looking forward to participating in the second annual Connecticut Hover-in held in Windsor and getting the chance to fly on the Connecticut River.

http://www.tiesmagazine.org/archives/mar_2005/pdf/mar_2005_HovercraftCurriculum.pdf

Biodynamic farming

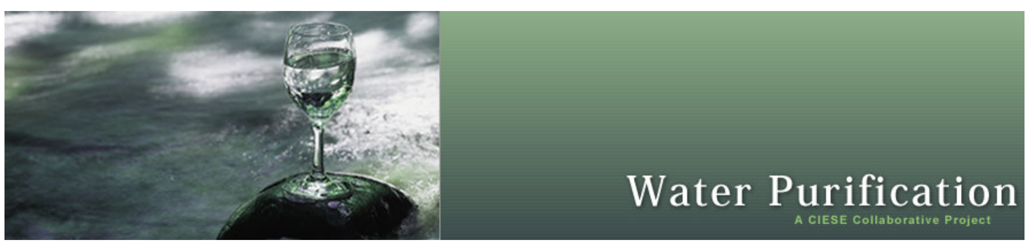
Through this project, students will be introduced to the concepts of systems engineering. Systems engineering activities present an opportunity for students to do engineering the way engineers do it. Students can work together to identify problems or opportunities, explore alternatives, create models and test them. The Internet and computer-aided design software make it feasible for students in multiple locations to work together to develop solutions to complex engineering challenges.

http://www.ciese.org/curriculum/aquaponics/index.html

Introduction to the Core Concepts of Systems Engineering

This project is designed to provide students in grades 9-12 with an orientation to systems engineering concepts. Students will be provided with an overview of systems thinking including the systems model. Through guided activities students will reverse-engineer a common device that contains both electrical and mechanical components…

http://www.ciese.org/curriculum/seproject/index.html



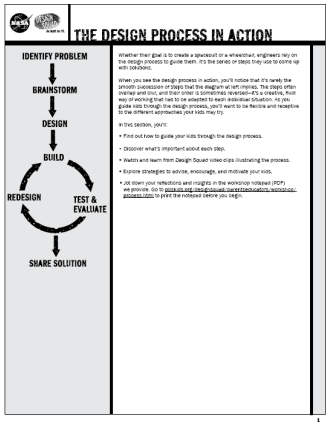
Water purification

This project integrates Science, Technology, Engineering and Math (STEM) using a systems engineering approach. Systems engineering activities present an opportunity for students to do engineering the way engineers do it. Students can work together to identify problems or opportunities, explore alternatives, create models and test them. The Internet and computer-aided design software make it feasible for students in multiple locations to work together to develop solutions to complex engineering challenges.

http://www.ciese.org/curriculum/purification/index.html

The Design Process in Action!

When you see the design process in action, you'll notice that it's rarely the smooth succession of steps that the diagram at left implies. The steps often overlap and blur, and their order is sometimes reversed—it's a creative, fluid way of working that has to be adapted to each individual situation. As you guide kids through the design process, you'll want to be flexible and receptive to the different approaches your kids may try.



http://www-tc.pbskids.org/designsquad/parentseducators/workshop/pdf/designprocess_in_action.pdf

Frank Lloyd Wright Preservation Trust
Architect 3D Studio

On this Web site, you can design a house, walk through it in 3D, and then share it with the world. You can also learn more about architecture, past and present, and explore Frank Lloyd Wright's life and work OR Try the **Design Studio Lite**, where you can design your floor plan, but you can't see your house in 3D.

http://architectstudio3d.org/AS3d/index.html

Autodesk Project Dragonfly

allows you to streamline your next home improvement project by using Dragonfly's intuitive design tools to rapidly create and furnish your floor plan, experimenting in real time with your ideas in 2D and 3D before making it real

http://dragonfly.autodesk.com

CIESE sponsors and designs interdisciplinary projects that teachers throughout the world can use to enhance their curriculum through compelling use of the Internet.

We focus on projects that utilize real time data available from the Internet, and collaborative projects that utilize the Internet's potential to reach peers and experts around the world.

http://www.ciese.org/currichome.html

West Point Bridge Design Contest

Introduce your students to engineering through an authentic, hands-on design experience. This **FREE** software provides you with the tools to model, test, and optimize a steel highway bridge, based on realistic specifications, constraints, and performance criteria.

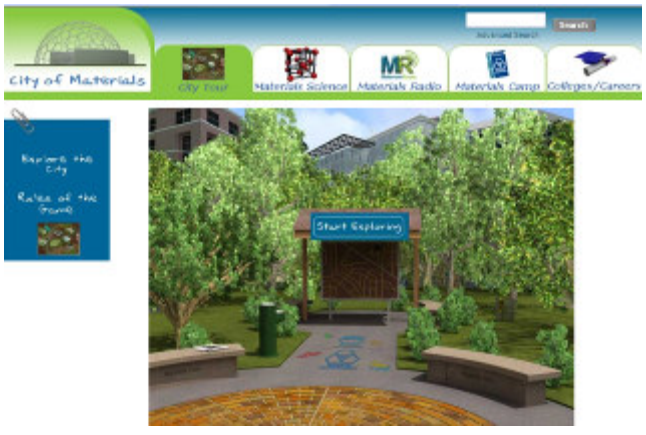
http://bridgecontest.usma.edu/download.htm

Atomic Learning's FREE Video Storyboard Pro is designed to give teachers, students, and home movie makers a tool to plan ahead when creating video projects.

http://www.atomiclearning.com/k12/en/storyboardpro

The **Construct My Future** web site presents a comprehensive link to information and materials for teachers, students, and parents about the construction industry. With resources for Parents, Students and Teachers as well as grants, publications and scholarships, this resource is well worth looking into!

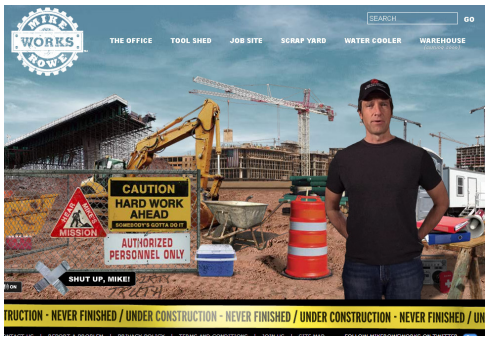
http://www.constructmyfuture.com/



City of Materials is an interactive online environment where you can explore the materials that are part of our everyday lives! City of Materials is a technology rich, web-based, visual, and interactive. The goal is for students to connect with Materials Science and Engineering both as a real-world engineering discipline and as a possible career.

http://www.cityofmaterials.com/portal/site/cityofmaterials/

Mike Rowe Works Web Site



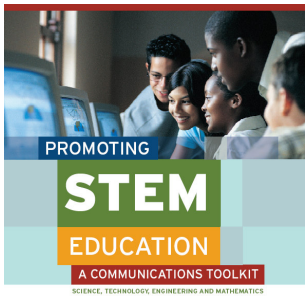
"Teaching is the profession that teaches all other professions." That was quipped by some unknown author back in the day. Well, hats off to that author whoever you were. The positive impact of educators should never be underestimated. Right along side our family, teachers set us down the road of our own life journey. They give us the tools to think, to process and to solve. We owe them way more than a shiny red apple. We owe those teachers who made a difference in our lives our thanks and achievement. Fortunately, those two ideas go hand in hand.

http://www.mikeroweworks.com

The Science of Speed

You can not win NASCAR races without getting the science right. NSF has partnered with NASCAR in the production of the "Science of Speed", a fast-paced 12-part video series that explains the scientific principles that are so essential to the NASCAR experience.

http://www.nsf.gov/sos/



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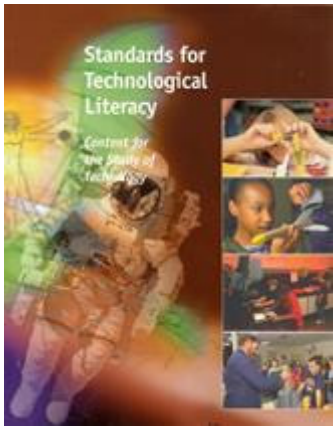
http://eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/43/2d/67.pdf

How it's made

is a series of short documentary videos showing how common everyday items are manufactured.

If you have ever wondered how a certain thing is manufactured you should look no further and start watching these very informative and interesting videos that we have compiled in this collection. The collection currently holds well over 100 videos and we try to add new videos on a regular basis, if you have anything to contribute let us know.

http://www.vidly.net/collection-how-its-made-5.html



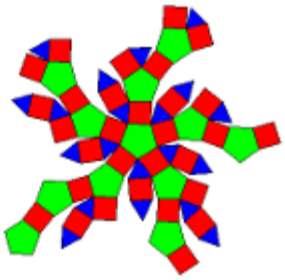
The STL identifies *content** necessary for K—12 students, including *knowledge**, abilities, and the capacity to apply both to the real world.

The standards in *STL* were built around a *cognitive** base as well as a doing/*activity** base. They include *assessment** checkpoints at specific grade levels (K—2, 3—5, 6—8, and 9—12). *STL* articulates what needs to be taught in K—12 *laboratory-classrooms** to enable all students to develop technological literacy.

The *goal** is to meet all of the standards through the *benchmarks** which are included in *STL*. Standards are written statements about what is valued that can be used for making a judgment of quality.

http://www.iteaconnect.org/TAA/PDFs/xstnd.pdf

2D – 3D



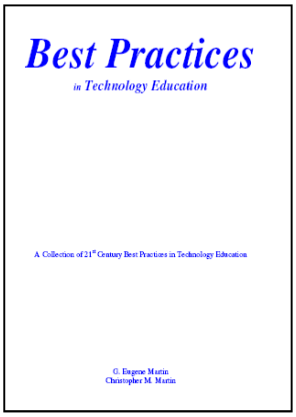
Net

Poly is a shareware program for exploring and constructing polyhedra.

With Poly, you can manipulate polyhedral solids on the computer in a variety of ways. Flattened versions (nets) of polyhedra may be printed and then cut out, folded, and taped, to produce three-dimensional models. Poly is used in schools and homes around the world.

http://www.peda.com/poly/

BEST PRACTICES In Technology Education

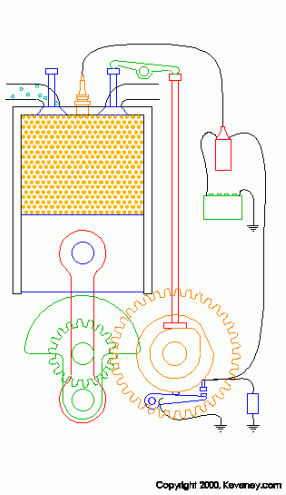


The Technical Foundation of America convened teams of technology educators in 2004 and 2005 for the purpose of identifying "Best Practices" in technology education.

This FREE book identifies and briefly describes selected Best Practices as viewed by the participants of those teams.

This book provides a snapshot of the combined list of best practices that resulted from the 2004 and 2005 sessions.

http://teched.vt.edu/ctte/ImagesPDFs/BestPracticesInTE.pdf



Animated Engines *provides you with animated illustrations that show the inner workings of a variety of engines. This web site began life as an experiment in web publishing, but has grown more and more focused on animated engines.*

Animated Engines features the inner workings of:

- *Internal combustion engines*
- *Steam engines*
- *Stirling engines*
- *And much more!*

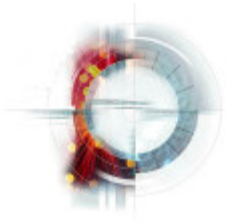
http://www.keveney.com/Engines.html

Challenge of Materials

A gallery and website all about materials, from the Science Museum, London.

http:// www.sciencemuseum.org.uk/

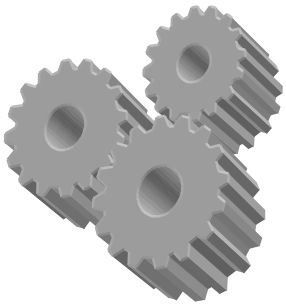
How Everyday Things Are Made!



Ever wonder how things are made? - if you are been interested in manufacturing processes, like forging, casting, or injection molding, then you've come to the right place!

AIM has developed an introductory website for kids and adults showing how various items are made. It covers over 40 different products and manufacturing processes, and includes almost 4 hours of manufacturing video.

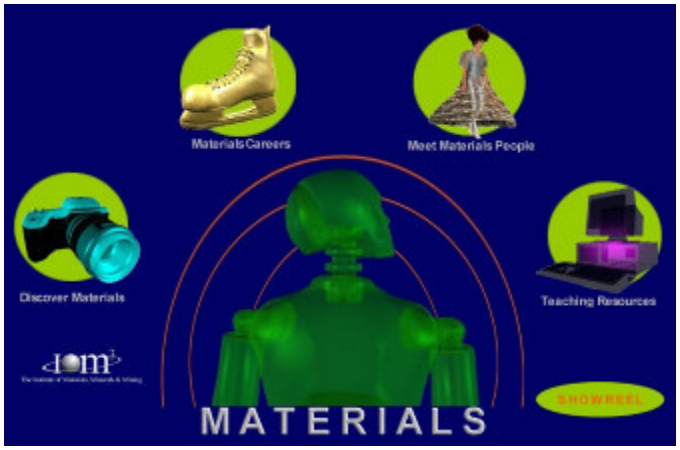
It is targeted towards non-engineers and engineers alike. Think of it as your own private online factory tour, or a virtual factory tour.



http:// manufacturing.stanford.edu/

Careers in Materials Our mission here is to give you an insight into the exciting world of Materials Science, and the opportunities. Our website is packed with information and resources on all aspects of the subject, including interactive games and quizzes, career options and case studies from our industry friends.

http:// www.materials-careers.org.uk/



Free Student Aware Safety Posters!

The **Student Aware** free web site welcomes and celebrates technology education teachers. For over 20 years Student Aware has been providing America's technology education teachers with free shop-safety and other free supplemental classroom materials.

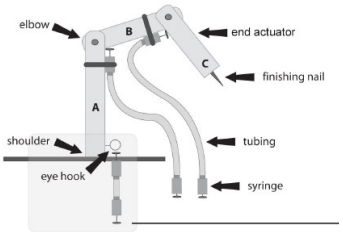
This web site has been especially designed for high school teachers and their vocational education, shop, or technology education students.

If you're new to our *Technology Education* program, click on the Free Posters, Materials & Survey link to order your free shop safety materials. If you already receive *Technology Education* shop-safety materials, please be sure to complete the online Reorder/Surveyor the one wrapped around the *Teachers' Newsletter* you received in September.

To receive up your free posters and materials please visit:

http:// www.teched101.com/

Hydraulic & Pneumatic Robot Arm!



There are many types of robots. Some do more detailed work, like microsurgery that requires exact precision. Some do heavy lifting, like arms that lift cars. Some need to move things fast and some need to move things slowly and carefully. Machines that require movements in short, very fast, bursts often use air pressure, called pneumatics. Moving very heavy loads often requires a more dense fluid than air, so they use a liquid. We call this hydraulics. There are 6 typical robot motions – rotate, rise, fall, twist, open, and close.

http:// www.montshire.org/ teams/teams3/here-to-there/ program_materials/ robotic-arm.pdf

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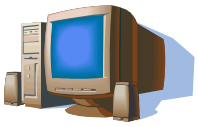
DEPARTMENT OF ADMINISTRATION

Indiana Surplus Computer Program

Indiana State Surplus must first offer educational entities the opportunity to bid on State owned surplus computers. The educational entity must be accredited, licensed, or certified by the Indiana Department of Education to qualify for this program.

The educational entity must submit their bid on letterhead and attach a copy of their accreditation, license or certification. The letter of request must state the type of computer, the quantity and the amount bid for each unit. A unit consists of hard drive, monitor, keyboard, mouse and hookup cables.



Orders are filled on first come, first serve basis. Once the order is filled, the entity will be called to schedule pick up. The educational entity must bring full payment in the form of a check from the entity's account. Nonprofit entities must pay with a money order. To learn more visit:

http://www.in.gov/

NSF Teams with NASCAR TO Reveal "The Science of Speed"

Educators have a new way to engage students in grades 8-12; they can turn to NASCAR. A new online series of videos called "The Science of Speed" teaches science by revealing the sophisticated science and engineering underlying NASCAR racing. "By exploring the range and depth of science that goes into something as wildly popular as NASCAR, we hope to harness the passion of its fan base and reignite interest in science and engineering among teachers and students," says Jeff Nesbit, director of the National Science Foundation's (NSF) Office of Legislative and Public Affairs, the organization that spearheaded the project. In the 12-module science video series, fast cars double as science experiments that illustrate basic concepts of friction, safety, sound, and other elements of racing at speeds up to 200 miles per hour. Through the videos, NSF seeks to enhance students' critical thinking, problem solving, and innovative use of knowledge for next generation applications.

http:// www.science360.gov/

FreeSignage.com

Free printable OSHA and statuary signs!

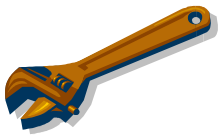
The introduction of free signage is the latest in a series of innovative projects which involve the use of internet based software, developed by the company's engineers, being made universally available all internet users, bringing professional typography and graphic design to all.

http:// www.freesignage.com/ warning_signs.php

pti power tool institute, inc.

Safety is Specific — a 24-page illustrated brochure which includes a straightforward compilation of rules and safe practices for each category of power tool use (specific cautions, warnings and dangers). The guidelines discuss the safe operation of widely used portable and stationary tools. *FREE*

A Teacher's Reference Guide to Power Tool Safety (Includes a copy of all publications and the Combination DVD in English) - provides lesson plans, student activities and quizzes, support materials, and references to additional information on each power tool category. *FREE.*



On the Job Power Tool Safety Maintenance Check List — a 1-page check list of 11 items including owner's manual, cord sets and extension cords, switches, tool holding devices, guards, housings, adjustments, blades and bits, maintenance, mechanical operation and electrical safety. No Charge.

http:// www.powertoolinstitute.com/education.html

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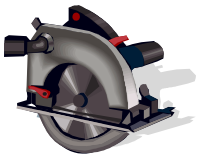
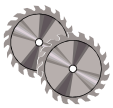
pti power tool institute, inc.

Power Tool Safety — a 4-page, cartooned brochure consisting of recommendations for the safe use of portable and stationary power tools on the job or at home. FREE

http:// www.powertoolinstitute.com/education.html

Safety Poster — Mr. Power Tool Safety Says "Prepare for the job, dress for the job and perform the job with SAFETY in mind! " FREE





Power Tool Accidents — They Can Be Prevented — a 19-minute video which addresses the importance of keeping the work area safe, electrical safety, developing good personal work habits and proper tool use and care. Includes interviews with emergency room physicians, people injured while using power tools and PTI safety experts. – No Charge

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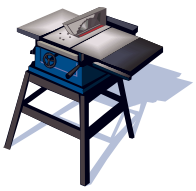
pti power tool institute, inc.

Circular Saw Safety — a 25-minute video which addresses the importance of keeping the work area safe, developing good personal work habits while using circular saws. *– No Charge*

Table Saw Safety — a 19-minute video which addresses proper workspace setup, the basics of making cuts, general safety procedures and proper maintenance. *– No Charge*

Miter Saw Safety Video – a 15-minute video which addresses safety procedures when using a miter saw. *– No Charge*

http:// www.powertoolinstitute.com/education.html



Design a Cell Phone

Help engineering director Elena design and manufacture a cell phone to help senior citizens get the most out of new technology!

http://www.edheads.org/

Paper Animation Kits

Flying Pig Paper Animation Kits are paper models you make that move. Easy to assemble, fun to share, great gifts, each of our paper animation kits comes as a booklet of parts ready to pop out and assemble. Check out the FREE samples here!

http://www.flying-pig.co.uk/pages/freedownloads.html

These simple to download files are ready for you to print out on your home printer. Just cut out the pieces and make you own delightful models - free!


Updated! The Agreeable Sheep


Origami Envelope


Snap-Up Squid


Combination Lock Extra.

Repurposed Computers for Indiana Schools

Does your school have a need for more computers in your classrooms but struggles to find funding to purchase more? The state of Indiana makes "surplus" or "repurposed" computers available to eligible educational entities at no charge to the school. Currently, the surplus includes Pentium III and IV type computers. The Corporation for Educational Technology (CET) serves as a facilitator between those who qualify and the Indiana Department of Administration's State Surplus organization. While there is **no charge** for the computers, schools must transport the computers from the State warehouse to their school location.

http://www.doe.in.gov/super/2008/08-August/082908/repurposed_computers.pdf

Design a Strong Arm Cantilever Project

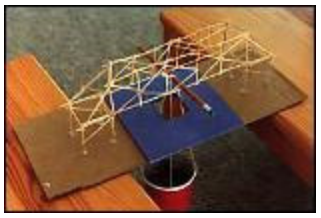
A cantilever is a structure that sticks out from a support and usually bears a load of some kind. Cantilevers are used everywhere. The most common use is as a support to hang signs, but they are also used in bridge construction. With this project you will be the engineer. You will design and build a cantilever structure (a “strong arm”) a minimum of 60 cm out from the side of a table using only newspaper, string, and tape.

http://www.yesmag.ca/projects/strong_arm.html

A Bridge Over Cardboard Water

A group of triangles can be joined together to form a truss. There are many different truss designs, including the Pratt, Whipple, and Fink (sounds like a law firm). Although truss bridges are not as good for spanning great distances as other bridge designs, they are extremely strong. Steel trusses, for example, are often used in railroad bridges. To build your own truss bridge, you need a steady hand and a bit of patience. But if you stick with it, you will have one terrific truss bridge.

http://www.yesmag.ca/projects/bridge.html



Chair Design

How much weight must you chair hold and who is it for These are aspects of function. Is it to your advantage to use less material or will this have an adverse impact on the structural strength of your chair? How will you make your chair look good and be comfortable with the material, size and load limitations of the challenge? And what looks good to you, anyway?

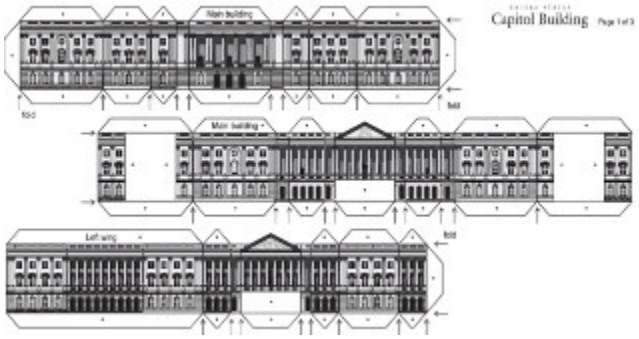
You will have to answer these and other questions for yourself as you develop your design. The tradeoffs you make will help determine the success or failure of your work.

http://www.tiesmagazine.org/archives/sep_2002/pdf/sep_2002_ChairDesign.pdf

Paper Toy Models

Website features completely free, print, cut, fold and glue resources for architectural modeling.

http://www.papertoys.com/



The Solar Cooker Archive

Solar cooking is the simplest, safest, most convenient way to cook food without consuming fuels or heating up the kitchen. Many people choose to solar cook for these reasons. But for hundreds of millions of

people around the world who cook over fires fueled by wood or dung, and who walk for miles to collect wood or spend much of their meager incomes on fuel, solar cooking is more than a choice — it is a blessing.

For millions of people who lack access to safe drinking water and become sick or die.

http://solarcooking.org/

Conference at a Glance

73rd ANNUAL ITEEA CONFERENCE

Wednesday, March 23, 2011

11:00am-5:00pm	Registration, Resource Center Open
1:00pm-4:00pm	Preconference Specialized Workshops
1:30pm-4:00pm	ITEEA Board of Directors Meeting
3:00pm-5:00pm	Council Meetings
5:00pm-6:00pm	ITEEA Welcome Gathering/Networking Event
6:00pm-7:00pm	CS Presidents Reception
8:00pm-10:00pm	TECA Welcome Session

Thursday, March 24, 2011

7:00am-8:30am	ITEEA President's Roundtable Breakfast
8:00am-5:00pm	Registration, Resource Center Open
9:00am-10:50am	Program Excellence General Session
11:00am-5:00pm	Exhibits Open Dedicated exhibit hours 11:00am-1:00pm
11:30am-12:30pm	Spouse/Partner/Guest Program
12:00pm-1:30pm	International Luncheon
1:00pm-4:50pm	Professional Development Learning Sessions EbDLabs™, Action Labs, Educational Tours
2:00pm-3:30pm	ITEEA Committee/Task Force Work Session
4:00pm-4:50pm	Governance Session

Exhibits, exhibits, exhibits...

Thursday

11:00am-5:00pm	Exhibits Open Dedicated exhibit hours 11:00am-1:00pm

Friday

11:00am-3:00pm	Exhibits Open Dedicated exhibit hours 12:00pm-2:00pm

Friday, March 25, 2011

7:00am-8:45am	FTE Spirit of Excellence Breakfast
8:00am-5:00pm	Registration, Resource Center Open
9:00am-10:50am	Teacher Excellence General Session
11:00am-11:50am	Professional Development Learning Sessions
11:00am-3:00pm	Exhibits Open Dedicated exhibit hours 12:00pm-2:00pm
1:00pm-4:50pm	Professional Development Learning Sessions EbDLabs™, Action Labs, Educational Tours

Saturday, March 26, 2011

7:00am-8:45am	EPT Breakfast
7:45am-8:45am	Program Excellence Breakfast
8:00am-12:00pm	Registration Open
8:30am-12:00pm	TECA Contest Finals and Awards Program
9:00am-11:00am	CTTE Poster Session and Teaching Technology and Engineering Showcase
9:00am-11:50am	Professional Development Learning Sessions EbDLabs™
12:00pm-1:50pm	Awards and Recognition Luncheon
2:30pm-5:00pm	ITEEA Board of Directors Meeting

ITEEA
International Technology and Engineering Educators Association
www.iteea.org

Preparing the STEM Workforce: The Next Generation

THE FIRST ANNUAL PLTW NATIONAL
InnovationSummit
October 20th through the 22nd • Washington, DC

Igniting STEM education through imagination and innovation.

Agenda

Where: Grand Hyatt Hotel, 1000 H Street NW, Washington, DC
When: October 20-24, 2010
Who: Educators, Students, Legislators, Businesses, Foundations, and Government Agencies
Why: To participate in the premiere event bringing together hundreds of people in the STEM community to investigate, ideate and ignite STEM education through imagination and innovation, and to participate in the USA Science and Engineering Festival

Wednesday, October 20, 2010
8:00 am to 6:00 pm Registration
3:00 to 5:00 pm updated information about the PLTW programs for schools
6:00 to 7:00 pm Student Showcase
7:00 pm Awards Dinner and Gala

Thursday, October 21, 2010
7:00 to 10:00 am Registration
8:00 to 9:00 am Buffet Breakfast
9:00 to 10:00 am Opening Plenary
10:00 to 10:45 am Networking Break
10:45 to 12 noon Panel Session #1
12:00 to 1:30 pm Lunch with Keynote Speaker
1:30 to 2:45 pm Panel Session #2
2:45 to 3:45 pm Networking Break
3:45 to 5:00 pm Panel Session #3
7:00 to 9:00 pm Dinner

Friday, October 22, 2010
7:00 to 8:30 am Breakfast Buffet with discussion tables
8:30 to 9:15 am Morning Plenary
9:30 to 10:30 am Panel Session #4
10:45 to 11:45 am Panel Session #5
12:00 to 1:30 pm Closing Lunch (to go lunches available)

Saturday and Sunday October 23 and 24, 2010
USA Science and Engineering Festival on The National Mall

Indiana Engineering & Technology Education Employment Opportunities!

School Personnel Job Bank

There are 410 jobs available in the Job Bank.

Frequently Asked Questions (+)

Search by Detail...

It is possible that some of the following positions have already been filled. These positions are posted by the Indiana Department of Education for three months or until they expire.

07/07/10 - Miscellaneous (48)	07/07/10 - Health/Physical Education/Sports (34)
07/07/10 - Administration (36)	07/06/10 - History / Social Studies (10)
07/07/10 - Arts and Music (20)	07/06/10 - Mathematics (42)
07/06/10 - Business (8)	07/08/10 - Nursing and Health Services (0)
07/07/10 - Elementary Education / General Studies (44)	07/06/10 - Science (21)
07/02/10 - Engineering and Technology Education (7)	07/07/10 - Special Education (57)
07/06/10 - English / Reading / Speech / Journalism (34)	07/06/10 - Technology / Media and Library Media (7)
06/17/10 - English Language Learners (ESL/ENL) (2)	07/02/10 - Vocational / Family and Consumer Science (10)
07/07/10 - Guidance / Social Work / Psychology (11)	07/07/10 - World Languages (19)

Close Date	Title/Position	Employment Type	Corporation	School	Action
07/22/2010	High School Industrial Technology Teacher	Full Time	Culver Community Schools Corp	Culver Community High Sch	View
07/29/2010	Technology / Industrial Education Teacher	Full Time	DeKalb Co Ctl United Sch Dist	DeKalb Middle School	View
07/30/2010	Computer Teacher	Full Time	Indiana Math Science Academy	IN Math & Science Acad North	View
07/30/2010	Industrial Technology Teacher	Part Time	Concord Community Schools	Concord Community High School	View
07/31/2010	Gateway to Technology Teacher	Full Time	Marion Community Schools	John L McCulloch Middle Sch	View
08/03/2010	Industrial Technology Teacher	Full Time	Rush County Schools	Benjamin Rush Middle Sch	View
08/05/2010	Industrial Technology Teacher	Full Time	Batesville Community Sch Corp	Batesville High School	View

More HELP WANTED at: http://www.doe.in.gov/peer/

NEWS AND RESOURCES FOR TEACHERS OF ENGINEERING & TECHNOLOGY EDUCATION

Mike Fitzgerald
Technology Education Specialist
Indiana Department of Education
mfitzger@doe.in.gov
317-232-6990

GRANTS, AWARDS & OPPORTUNITIES

Donors Choose Here's how it works: public school teachers from every corner of America post classroom project requests on DonorsChoose.org.

Welcome to the National Teacher Registry The National Teacher Registry is a free service for schools and teachers that enables them to create a list of the items they need for their classrooms.

Technology Donors Program Digital Wish matches teachers with donors who provide schools with funding or technology items.

Computers for Learning CFL is offering computers and related equipment to K-12 schools and educational non-profit organizations.

The AFCEA Educational Foundation will offer scholarships of $5,000 to students actively pursuing an undergraduate or graduate education degree for the purpose of teaching STEM (Science, Technology, Engineering or Mathematics) subjects at a U.S. middle or secondary school.

Abbott Foundation This foundation invests in creative ideas that encourage experimentation and promote science.

Louis R. Cappelli Foundation Cappelli directs funds toward innovative educational experiences that tie schools and parents together in the educational adventure with their children.

The Lawrence Foundation The foundation focus is on making grants to support environmental, education, health, human services, and other causes.

AFJROTC Grant The grant's purpose is to enhance teaching about how aerospace science plays an important role in tomorrow's society.

Newspaper Sponsorship USA Today offers classrooms the opportunity to receive its free educational program.

The Handspring Corporation Free Cash Grants & Product Donations Handheld Computers Funding Source for Non Profit Organizations for Youth & Schools & After-School Programs

Hewlett-Packard Foundation Grant Funding School Technology Non Profit Grants for Technology for Program Delivery

RGK Foundation Grants For Non Profit Organizations & K-12 Science, Math & Technology Programs with emphasis on Science, Technology Math for female & minority students.

RadioShack Funding Opportunity for Technology Grants for Equipment for Child and Family Safety Efforts.